North Coast Watershed Assessment Program

DRAFT

Mattole Watershed Synthesis Report

The mission of the North Coast Watershed Assessment Program is to conserve and improve California's north coast anadromous salmonid populations by conducting, in cooperation with public and private landowners, systematic multi-scale assessments of watershed conditions to determine factors affecting salmonid production and recommend measures for watershed improvements.

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Analyses and Results by Subbasin

Introduction

For the purpose of the NCWAP study of the Mattole River Basin, the basin has been divided into five subbasins based on twenty-five distinct planning watersheds as defined by Calwater 2.2a. Four of the five subbasins in the basin were designated based on geography, geology, climate patterns, and land use, and conforms with Calwater 2.2 Planning Watershed boundaries. The fifth subbasin, the Estuary, has been designated as a distinct subbasin for this study because of the importance of the estuarine environment as a down-migrant holding area for juvenile fish stocks.

- The Estuary subbasin is 2 square miles in area and contains the basin downstream of the confluence of Bear Creek and the Mattole River mainstem. The estuary drains the Mattole River to the Pacific Ocean. The Mendocino Triple Junction, where the Gorda, the North American, and the Pacific geologic plates meet, occurs in the vicinity of the Estuary, making the Mattole River basin as a whole one of the most tectonically active in California. The southern extent of the basin is owned and managed by the BLM as part of the King Range National Conservation Area.

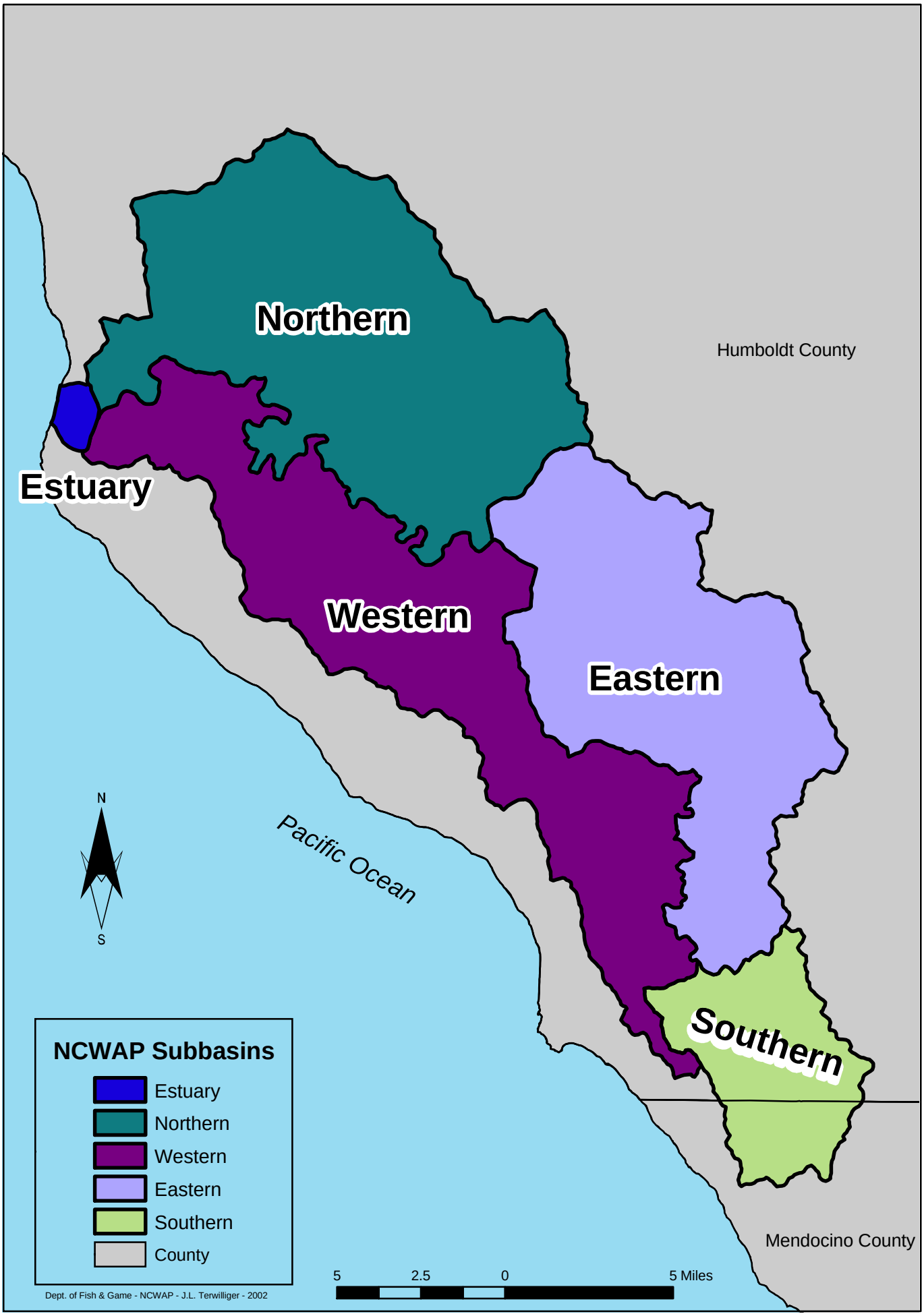
- The Northern subbasin is located between the Estuary and Honeydew Creek and one of three towns in the watershed, Petrolia, is located near the confluence with the lower North Fork Mattole River and the Mattole River mainstem. It drains an area of 98 square miles and contains some of the largest continuous areas of large landslides and high to very high landslide potential of all the subbasins. The largest contiguous old growth remaining in the entire watershed can be found here, but vegetation type is predominantly second-growth mixed hardwood/Douglas Fir forest, although grasslands are a significant component. It is partially bordered on the east side by Humboldt Redwoods State Park. Steelhead are currently present in the subbasin. Based on previous DFG surveys, coho were once found here.

- The Eastern subbasin is located between Honeydew Creek and Bridge Creek and the second of the three towns, Honeydew, is located near the confluence of Honeydew Creek and the Mattole River mainstem. It drains an area of 79 square miles and geology and slope stability varies widely. Much of the land in this subbasin has been converted from large ranchlands to rural sub-divisions. The predominant vegetation type is second growth mixed hardwood/Douglas fir forests. Coho, chinook, and steelhead trout can all be found in this subbasin.

- The Southern subbasin is located south of Bridge and McKee Creeks and encompasses the headwaters of the Mattole River at the southern end. It is divided between Humboldt and Mendocino Counties. The third of the three towns, Whitethorn is located near the confluence of upper Mill Creek and the Mattole River mainstem. It drains an area of 28 square miles and contains the largest continuous areas of hard terrain and lowest landslide potential of the subbasins. The predominant vegetation type is mixed hardwood/coniferous forest including old and second growth Redwood forests. This subbasin is the most densely populated of the subbasins but is considered to have some of the best remaining fish rearing habitat of the entire basin. Coho, chinook, and steelhead trout can all be found in this subbasin.

- The Western subbasin is located from the border with the Estuary in the north to the headwaters of Bear Creek in the south. It drains 89 square miles and geology and slope stability varies. Much of this subbasin is under public ownership, managed by the BLM as part of KRNCA. The predominant vegetation type is second growth mixed hardwood/Douglas fir forest. King Peak, at 4,088 feet is the highest elevation in the basin.

Mattole River Subbasins



Mattole Basin Primary Roads